

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|---------|---|------------------------|------------------|---------|------------------|
| L1 | 3232461 | stream or flow or effluent or reactant or product | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:54 |
| L2 | 1342715 | recycle or recycled or recycling or return or returned | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:55 |
| L3 | 131723 | 1 near5 2 | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:55 |
| L4 | 210827 | humidi\$ | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:56 |
| L5 | 345 | 3 with 4 | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:56 |
| L6 | 1854155 | product or effluent | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:57 |
| L7 | 40155 | 2 near5 6 | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 10:57 |
| L8 | 44 | 7 with 4 | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 11:02 |
| L9 | 219 | effluent with (completion or limit or standard) with recycle\$ | US-PGPUB; USPAT | ADJ | ON | 2007/04/15 11:03 |
| S1 | 1 | "6723888".pn. | US-PGPUB; USPAT | ADJ | ON | 2007/04/11 13:08 |
| S2 | 13 | ("3778424" "4182813" "4182814" "4472559" "4705654" "5109082" "5346971" "5548045" "5955553" "6096840" "6117956" "6514634").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:14 |
| S3 | 3 | humidification near3 (system or method) same polymerization | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:16 |
| S4 | 424 | (humidif\$ or saturat\$) with (vessel) same polymerization | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:19 |
| S5 | 2711 | (humidif\$ or saturat\$) with (system or method) same polymerization | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:21 |
| S6 | 363 | (humidif\$ or saturat\$) with (system or method) same polymerization same (butadiene or polybutadiene or Ziegler-Natta) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:35 |
| S7 | 261 | ((humidif\$ or saturat\$) with (hydrocarbon)) and (ceramic or porcelain) with (sphere or spherical) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:37 |

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| S8 | 12 | ((humidif\$ or saturat\$) with (hydrocarbon)) same (ceramic or porcelain) with (sphere or spherical) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:40 |
| S9 | 24 | ("3615850" "4362788" "4365006" "4530886" "4670359" "4743517" "5605770" "5768906" "6045933" "6045934" "6063515" "6171718" "6221117" "6274259" "6277508" "6312842" "6331366" "6361891" "6376114" "6383670" "6413662" "6416892").PN. OR ("6514634").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:48 |
| S10 | 6 | "4705654" | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:50 |
| S11 | 3469 | humidif\$ adj2 (gas or fuel or hydrocarbon) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:51 |
| S12 | 195 | humidif\$ adj2 (gas or fuel or hydrocarbon) and polymerization | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:51 |
| S13 | 127 | humidif\$ adj2 (gas or fuel or hydrocarbon).ti. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 13:51 |
| S14 | 127 | (humidif\$ adj2 (gas or fuel or hydrocarbon)).ti. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:04 |
| S15 | 11 | ((("3778424") or ("4182813") or ("4182814") or ("4472559") or ("5109082") or ("5346971") or ("5548045") or ("5955553") or ("6096840") or ("6117956") or ("6514634")).PN. | US-PGPUB; USPAT | OR | OFF | 2007/04/11 14:38 |
| S19 | 5187 | (ceramic or porcelain) (ball or sphere or spherical) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:05 |
| S21 | 17518 | (ceramic or porcelain) with (ball or sphere or spherical) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:59 |
| S22 | 1 | S21 and S14 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:20 |
| S23 | 634 | 585/3.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:26 |

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| S24 | 252 | 585/15.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:27 |
| S25 | 413265 | ceramic or porcelain | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:27 |
| S26 | 579154 | ceramic or porcelain or alumina | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:45 |
| S27 | 19 | S26 and S14 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:28 |
| S28 | 31 | ("0942712" "2664604" "3486697" "3532270" "3630956" "3830478" "3925109" "4066399" "4098853" "4244904" "4272014" "4317687" "4385910" "4425914" "4541966" "4547228" "4618462" "4829763" "4888786" "4913140" "4989840" "5004489" "5056511" "5062145" "5249740" "5495875").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:43 |
| S29 | 0 | 261/18.1,18.2,18.3 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:44 |
| S30 | 1932 | 261/18.1,18.2,18.3.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:44 |
| S32 | 15 | S26 and S30 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:53 |
| S33 | 63 | S14 not fuel cell | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:53 |
| S34 | 13 | ("20020110714" "3952181" "4436674" "4705936" "4711294" "4909436" "6115539" "6135433" "6182951" "6299147" "6715743" "6787254" "6863268").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:55 |
| S35 | 813 | (ceramic or porcelain or alumina) with (increased or increase or increasing or decreas\$) near3 (diameter or radius or width) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:57 |
| S36 | 12 | S35 same vessel | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 15:57 |

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|-----|---------|---|------------------------------|-----|----|------------------|
| S37 | 16332 | (ceramic or porcelain or alumina) near4 (ball or sphere or spherical) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:12 |
| S38 | 77068 | (increasing or increase or improve or increased) near2 contact | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:01 |
| S39 | 40 | S37 same S38 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:01 |
| S40 | 3 | upflow and S38 and S37 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:06 |
| S41 | 17 | ("3598539").URPN. | USPAT | ADJ | ON | 2007/04/11 16:11 |
| S42 | 2178591 | small or smaller | USPAT | ADJ | ON | 2007/04/11 16:11 |
| S43 | 809 | S42 near5 bottom near3 layer | USPAT | ADJ | ON | 2007/04/11 16:12 |
| S44 | 1 | S37 same S43 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:13 |
| S45 | 7 | S37 and S43 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:19 |
| S46 | 895 | 261/18.2.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:21 |
| S47 | 557 | S46 not engine | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:44 |
| S48 | 428 | humidif\$ process | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:46 |
| S49 | 0 | vessel same water same hydrocarbon same (recycle or return) same humidif\$ same diameter | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:48 |
| S50 | 2 | vessel same water same hydrocarbon same (recycle or return) same humidif\$ | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:49 |
| S51 | 770 | vessel and water and hydrocarbon and (recycle or return) and humidif\$ | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:50 |
| S52 | 241 | vessel and water and hydrocarbon and (recycle or return) and humidif\$ and (ceramic or porcelain) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 16:50 |
| S53 | 91 | vessel and water and hydrocarbon and (recycle or return) and humidif\$ and (ceramic or porcelain) and diameter | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:05 |

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| S54 | 3276 | 422/177,190.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:05 |
| S55 | 296081 | (particle or sphere or ball or bead) with (smaller or larger or increasing or decreasing or increase or decrease) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:07 |
| S56 | 0 | S55and S54 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:07 |
| S57 | 401 | S55 and S54 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:17 |
| S58 | 175 | S57 not exhaust | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:17 |
| S59 | 11 | ((("3778424") or ("4182813") or ("4182814") or ("4472559") or ("5109082") or ("5346971") or ("5548045") or ("5955553") or ("6096840") or ("6117956") or ("6514634"))).PN. | US-PGPUB; USPAT | OR | OFF | 2007/04/11 17:33 |
| S60 | 296081 | (particle or sphere or ball or bead) with (smaller or larger or increasing or decreasing or increase or decrease) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/11 17:34 |
| S61 | 39 | vessel same upflow same S60 | US-PGPUB; USPAT | ADJ | ON | 2007/04/11 17:38 |
| S62 | 152 | flow near2 (distribut\$) same (small\$ or decreas\$) near4 (lower or bottom) | US-PGPUB; USPAT | ADJ | ON | 2007/04/11 17:40 |
| S63 | 14 | flow distribution with upflow | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:37 |
| S64 | 806253 | (mix or mixing) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:40 |
| S65 | 703801 | vessel or tank | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:42 |
| S66 | 4981 | upflow | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:42 |
| S67 | 968724 | ceramic or inert or porcelain or alumina or silica | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:42 |
| S68 | 1297434 | ball or sphere or bead or particle | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:43 |
| S69 | 89058 | S67 near3 S68 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:43 |
| S70 | 37308 | S64 near4 S65 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:43 |

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|-----|---------|---|--------------------|-----|----|------------------|
| S71 | 11 | S70 with S66 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:45 |
| S72 | 199 | S69 same S70 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:59 |
| S73 | 2 | S72 same S66 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 07:45 |
| S74 | 3132455 | smaller or small or ((decrease or decreasing or increase or increasing) near4 (diameter or size)) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:02 |
| S75 | 242971 | S74 with S68 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:01 |
| S76 | 341895 | ((decrease or decreasing or increase or increasing) near4 (diameter or size)) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:02 |
| S77 | 24881 | S76 with S68 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:02 |
| S78 | 1142 | S77 with (bottom or lower) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:02 |
| S79 | 40 | S78 same distribution same flow | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:04 |
| S80 | 25 | S79 not arnaud.in. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:09 |
| S81 | 389 | 422/176.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:17 |
| S82 | 191 | 96/152.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:18 |
| S83 | 442 | 422/310.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:20 |
| S84 | 205 | 422/311.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:10 |
| S85 | 110 | 422/312.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 08:20 |
| S86 | 67563 | (size or diameter) with (layer or bed) with (large or larger or small or smaller or increasing or increase or decrease or decreasing) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:43 |
| S87 | 22993 | S86 and "422".clas. or "96".clas. or "502.clas" | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:34 |
| S88 | 93154 | "422".clas. or "96".clas. or "502.clas" | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:46 |
| S89 | 1938 | S86 same (ceramic or porcelain) | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:44 |
| S90 | 98 | S88 and S89 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:44 |

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| S91 | 122349 | "422".clas. or "96".clas. or "502.clas" or "585".clas. | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:46 |
| S92 | 104 | S89 and S91 | US-PGPUB; USPAT | ADJ | ON | 2007/04/12 09:46 |
| S93 | 37 | ("2435781" "2657121" "2915375" "2925331" "3431084" "3479146" "3498755" "3545939" "3560167" "3598539" "4285910" "4579647" "4660385" "4705621" "4708852" "4743433" "5169413" "5298226").PN. OR ("5538544").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 09:57 |
| S94 | 22 | (separation with hydrocarbon) same S86 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:01 |
| S95 | 2153963 | water or "H.sub.2O" | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:51 |
| S96 | 3542024 | separate or separated or separation | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:02 |
| S97 | 915075 | hydrocarbon or fuel | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:03 |
| S98 | 569348 | hydrocarbon | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:03 |
| S99 | 9342 | S95 with S96 with S98 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:05 |
| S100 | 3 | S99 with S86 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:04 |
| S101 | 4185 | S95 near6 S96 near6 S98 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:06 |
| S102 | 4 | S101 same S86 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:15 |
| S103 | 31142 | packing near2 material | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:15 |
| S106 | 149123 | entrain or entrainment or entraining or entrained | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:17 |

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| S10 7 | 14962 | S106 near3 S95 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:18 |
| S10 8 | 6791 | dispersion near4 flow | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:18 |
| S10 9 | 117 | S103 with S106 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:19 |
| S11 0 | 6 | S103 with S107 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 10:25 |
| S11 1 | 3 | S108 near8 S103 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:33 |
| S11 2 | 22 | vessel and packing material and water inlet and water level | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:45 |
| S11 3 | 7757 | (increase or increasing or increased) near3 S95 near2 content | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:52 |
| S11 4 | 1141164 | hydrocarbon or fuel or pentane or hexane or heptane or gasoline or diesel or petroleum | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:48 |
| S11 5 | 205 | S113 with S114 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:48 |
| S11 6 | 2289086 | water or "H.sub.2O" or moisture | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:51 |
| S11 7 | 12566 | (increase or increasing or increased) near3 S116 near2 content | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:53 |
| S11 8 | 7755 | S113 with S117 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:53 |
| S11 9 | 268 | S114 with S117 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:55 |
| S12 0 | 212 | S119 not fuel cell | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/12 11:55 |
| S12 1 | 40397 | (packed or packing) near3 (material or bed) | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:48 |
| S12 2 | 16503 | smaller near4 bottom | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:46 |

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| S12 3 | 3 | S121 near9 S122 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:46 |
| S12 4 | 3 | S121 with S122 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:46 |
| S12 5 | 20963 | larger near3 above | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:47 |
| S12 6 | 7 | S125 near9 S121 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:48 |
| S12 7 | 727117 | ceramic or porcelain or inert | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:44 |
| S12 8 | 3952868 | larger or smaller or increasing or increased or increase or decrease or decreasing or decreased | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:50 |
| S12 9 | 70 | S121 near9 S128 with S127 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 07:54 |
| S13 0 | 180 | packed bed near9 layer | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 08:44 |
| S13 1 | 539 | inert packing | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 08:36 |
| S13 2 | 32 | S131 with layer | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 08:33 |
| S13 3 | 30606 | "585".clas. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 08:36 |
| S13 4 | 73469 | "422".clas. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 08:36 |
| S13 5 | 241 | 210/807.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 09:01 |
| S13 6 | 2016 | catalyst support material | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 09:01 |
| S13 7 | 43 | S136 and UOP.as. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 09:10 |
| S13 8 | 239 | 210/661.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:33 |
| S13 9 | 0 | 21/263.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:33 |
| S14 0 | 393 | 210/263.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:42 |
| S14 1 | 33205 | "366".clas. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:03 |
| S14 2 | 29 | flow dispersion and S141 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:43 |
| S14 3 | 1297434 | ball or sphere or particle or bead | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:44 |

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|----------|---------|--|--------------------|-----|----|------------------|
| S14 4 | 29072 | S127 near2 S143 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:44 |
| S14 5 | 89 | S144 and S141 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:53 |
| S14 6 | 121 | moisture with (saturating or saturated or saturate) with hydrocarbon | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:54 |
| S14 7 | 61 | moisture with (saturating or saturated or saturate) with fuel | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 11:54 |
| S14 8 | 729360 | ball or sphere or bead | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:03 |
| S14 9 | 2236 | S141 and S148 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:17 |
| S15 0 | 73 | water same humidification same hydrocarbon | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:17 |
| S15 1 | 8 | packing and S150 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:21 |
| S15 2 | 3 | (humidification and hydrocarbon).ti. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:22 |
| S15 3 | 227 | humidification.ti. | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:22 |
| S15 4 | 3 | S152 not fuel cell | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:22 |
| S15 5 | 161 | S153 not fuel cell | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:24 |
| S15 6 | 78 | S155 and liquid | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:26 |
| S15 7 | 258064 | natural gas or lpg or methane or ethane or propane | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:26 |
| S15 8 | 199245 | bubble or bubbling | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:27 |
| S15 9 | 1564473 | water or "H.sub.2O" | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:27 |
| S16 0 | 128 | S157 with S158 with S159 | US-PGPUB; USPAT | ADJ | ON | 2007/04/13 12:27 |

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| S16 1 | 39 | ("20030168211" "20030173275" "20030173276" "20030173288" "2735547" "3289608" "3447511" "3507397" "3512651" "3568837" "3623608" "3947364" "3986954" "4237006" "4790942" "5000848" "5021165" "5071542" "5131757" "5139662" "5362395" "5451349" "5478484" "5647977" "5794791" "5882530" "5944998" "6024874" "6032931" "6080317" "6106713" "6165365" "6168724" "6669843").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:38 |
| S16 2 | 137198 | entrain or entrained or entraining | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:38 |
| S16 3 | 2361577 | remove or removal | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:39 |
| S16 4 | 2763662 | remove or removal or removing | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:39 |
| S16 5 | 1458 | S162 near4 S164 near4 S159 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:39 |
| S16 6 | 3 | S165 same packed bed | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:40 |
| S16 7 | 15 | S165 same packing | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:48 |
| S16 8 | 594 | 261/66.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 12:54 |
| S16 9 | 225 | gas same water same humidi\$ same bubbl\$ same inlet | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 13:49 |
| S17 0 | 18 | gas and bubbling and water level and propane and particulates | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 13:51 |
| S17 1 | 44 | gas and bubbling and water level and propane | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 13:54 |

EAST Search History

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| S17 2 | 12 | (US-5538544-\$ or US-6123324-\$ or US-6723888-\$ or US-4469599-\$ or US-4967673-\$ or US-3948810-\$ or US-6514634-\$ or US-5432020-\$ or US-5776351-\$ or US-4579599-\$ or US-5993672-\$).did. or (US-3598539-\$).did. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:37 |
| S17 3 | 10 | water and S172 | USPAT; USOCR | ADJ | ON | 2007/04/13 13:52 |
| S17 4 | 8 | gas and bubbler and water level and propane | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 13:54 |
| S17 5 | 31 | ("0942712" "2664604" "3486697" "3532270" "3630956" "3830478" "3925109" "4066399" "4098853" "4244904" "4272014" "4317687" "4385910" "4425914" "4541966" "4547228" "4618462" "4829763" "4888786" "4913140" "4989840" "5004489" "5056511" "5062145" "5249740" "5495875").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 13:57 |
| S17 6 | 160 | bubbler and S127 near2 S143 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:06 |
| S17 7 | 251648 | bubble or bubbling or bubbler | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:06 |
| S17 8 | 715 | moisture analyzer | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:06 |
| S17 9 | 826 | moisture near2 analyzer | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:07 |
| S18 0 | 613 | S177 same S143 near3 S127 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:09 |
| S18 1 | 11 | S180 and bypass | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:11 |
| S18 2 | 0 | S180 and S178 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:11 |
| S18 3 | 0 | S180 and S179 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:12 |

EAST Search History

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| S18 4 | 1200 | (bubble or bubbler or bubbling) and water and analyz\$ and controller and humidi\$ | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:13 |
| S18 5 | 660 | (bubble or bubbler or bubbling) and water and analyz\$ and controller and humidi\$ and (ball or sphere or bead) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:13 |
| S18 6 | 305 | (bubble or bubbler or bubbling) and water and analyz\$ and controller and humidi\$ and (ball or sphere or bead) and moisture | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:16 |
| S18 7 | 2 | moisture near2 analyzer with control same bypass | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:23 |
| S18 8 | 2584 | bubble near4 through near4 water | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:24 |
| S18 9 | 112 | moisture same S188 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 14:24 |
| S19 0 | 0 | 261/dig34.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:37 |
| S19 1 | 0 | 261/dig40.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:38 |
| S19 2 | 0 | 261/DIG40.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:38 |
| S19 3 | 81 | 261/DIG.40.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:38 |
| S19 4 | 1254 | 261/DIG.34.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:40 |
| S19 5 | 179 | 261/129.ccls. | USPAT; USOCR | ADJ | ON | 2007/04/13 14:40 |
| S19 6 | 171 | S195 not respiratory | USPAT; USOCR | ADJ | ON | 2007/04/13 14:42 |
| S19 7 | 145 | bypass near4 control same humidi\$ | USPAT; USOCR | ADJ | ON | 2007/04/13 16:20 |
| S19 8 | 1 | "5650128".pn. | USPAT; USOCR | ADJ | ON | 2007/04/13 16:20 |

EAST Search History

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| S19 9 | 52 | ("2537091" "2610411" "2656008" "3251656" "3706445" "3999936" "4058147" "4134271" "4176152" "4688495" "4722662" "4746290" "4766822" "4815398" "4823711" "4862813" "4892664" "4907964" "4925389" "4951743" "4961391" "4974528" "4983364" "5050603" "5098481" "5165884" "5203370" "5215075" "5228803" "5238658" "5277545" "5282695" "5291859" "5295448" "5320518" "5344313" "5427746").PN. OR ("5650128").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:31 |
| S20 0 | 31 | ("0942712" "2664604" "3486697" "3532270" "3630956" "3830478" "3925109" "4066399" "4098853" "4244904" "4272014" "4317687" "4385910" "4425914" "4541966" "4547228" "4618462" "4829763" "4888786" "4913140" "4989840" "5004489" "5056511" "5062145" "5249740" "5495875").PN. OR ("6123324"). URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:32 |
| S20 1 | 18 | (humidification or humidifier) with propane | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:34 |
| S20 2 | 103 | (humidification or humidifier or humidity) with propane | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:34 |
| S20 3 | 85 | S202 not S201 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:43 |
| S20 4 | 82 | humidity near5 control same hydrocarbon | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:48 |
| S20 5 | 528 | bubbler same S143 | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 16:51 |
| S20 6 | 474 | 261/126.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:03 |
| S20 7 | 241 | 261/53.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:04 |

EAST Search History

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| S20 8 | 781 | 261/62.ccls. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:20 |
| S20 9 | 1 | "4705654".pn. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:20 |
| S21 0 | 28 | ("1910199" "2002019" "2189173" "2545028" "2825210" "3230055" "3271969" "3274752" "3292998" "3499734" "3833205" "4023949" "4435339").PN. OR ("4705654"). URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:26 |
| S21 1 | 0 | (humidi\$ and ball).ti. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:26 |
| S21 2 | 224 | (humidi\$ and gas).ti. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:27 |
| S21 3 | 179 | S212 not fuel cell | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/13 17:37 |
| S21 4 | 45604 | bubble or bubbler or bubbling or bubbled | EPO; JPO | ADJ | ON | 2007/04/13 17:37 |
| S21 5 | 772907 | water or "H.sub.2O" | EPO; JPO | ADJ | ON | 2007/04/13 17:37 |
| S21 6 | 82905 | hydrocarbon | EPO; JPO | ADJ | ON | 2007/04/13 17:38 |
| S21 7 | 84 | S214 and S215 and S216 | EPO; JPO | ADJ | ON | 2007/04/13 17:52 |
| S21 8 | 607 | humidi\$ and hydrocarbon | EPO; JPO | ADJ | ON | 2007/04/13 17:52 |
| S21 9 | 3 | humidi\$ and hydrocarbon and vessel | EPO; JPO | ADJ | ON | 2007/04/13 17:53 |
| S22 0 | 4 | humidi\$ and hydrocarbon and packing | EPO; JPO | ADJ | ON | 2007/04/13 17:55 |
| S22 1 | 2 | humidi\$ and (natural gas) and packing | EPO; JPO | ADJ | ON | 2007/04/13 17:55 |
| S22 2 | 14 | humidi\$ and (natural gas) | EPO; JPO | ADJ | ON | 2007/04/13 17:55 |
| S22 3 | 14 | humidi\$ and (natural gas) | EPO; JPO | ADJ | ON | 2007/04/14 11:12 |
| S22 4 | 216 | humidi\$ with (natural gas) | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/14 11:20 |

EAST Search History

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| S22 5 | 24 | "171164" | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/14 11:20 |
| S22 6 | 0 | porcelain with (durability or durable) same packing | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 13:58 |
| S22 7 | 35 | packing material with porcelain | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:10 |
| S22 8 | 884 | porcelain near3 (ball or sphere or bead) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:03 |
| S22 9 | 2 | S228 same gas near3 liquid | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:06 |
| S23 0 | 253 | porcelain with (corrosive or corrosion) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:07 |
| S23 1 | 3 | S230 same gas same liquid | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:08 |
| S23 2 | 5 | S230 same durable | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:08 |
| S23 3 | 10 | packed bed with porcelain | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:38 |
| S23 4 | 1 | "4705654".pn. | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:45 |
| S23 5 | 413 | humidi\$ same (return or recycle) near5 (line or stream) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:46 |
| S23 6 | 144 | humidi\$ with (return or recycle) near5 (line or stream) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:49 |
| S23 7 | 283 | humidi\$ with control with (return or recycle) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 14:51 |
| S23 8 | 6 | humidi\$ with control with (recycle) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:05 |
| S24 0 | 168 | humidi\$ with (recycle) | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:05 |
| S24 1 | 33 | humidi\$ with (recycle) same control | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:06 |
| S24 2 | 27 | S241 not S238 | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:10 |
| S24 3 | 21 | humidi\$ near3 control same recycle | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:11 |
| S24 4 | 16 | S243 not S242 | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:16 |
| S24 5 | 1060 | 236/44R.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:27 |
| S24 6 | 370 | 236/44A.ccls. | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:17 |

EAST Search History

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| S24 7 | 1362 | S245 or S246 | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:17 |
| S24 8 | 8657 | recycle stream | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:17 |
| S24 9 | 0 | S248 and S247 | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:17 |
| S25 0 | 1 | recycle and S247 | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:17 |
| S25 1 | 284 | humidi\$ near3 maintain near5 constant | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:28 |
| S25 2 | 2 | humidi\$ near3 maintain near5 constant same recycle | US-PGPUB; USPAT | ADJ | ON | 2007/04/14 15:28 |
| S25 3 | 4 | ("4608245" "4968787" "5256173" "6007636").PN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2007/04/14 15:29 |